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## BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

| | | |
|---|---|---|
| **Name of Work** | : | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| **Client** | : | Bruhat Bengaluru Mahanagara Palike |
| **Consultant** | : | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| **Contractor** | : | HONNAPPA MURTHY |
| **Date of Testing** | : | 23-09-19 |
| **Type of Mix** | : | BC |
| **Sample I/D** | : | BC4 |

### DETERMINATION OF BITUMEN CONTENT

| Description | Trail 1 | Trail 2 |
|---|---|---|
| 1. Weight of Mixture before extraction, g | 932 | 911 |
| 2. Weight of Mixture after extraction, g | 880 | 860 |
| 3. Weight of Bitumen | 52 | 51 |
| 4. Weight of filter paper before extraction, g | 2.00 | 2.15 |
| 5. Weight of filter paper after extraction, g | 4.10 | 4.00 |
| 6. Weight of fines, g | 2.10 | 1.85 |
| 7. Weight of Bitumen & fines | 54.10 | 52.85 |
| 8. Bitumen content in % | 5.80 | 5.80 |
| 9. Average Bitumen content in % | **5.80** | |
| 10. Minimum Bitumen content in % | **5.80** | |

### GRADATION FOR BC AFTER EXTRACTION

**(As per MORT&H 500-18,Grading-2)**

| | | | |
|---|---|---|---|
| Sample Location: | At site | Date of Sampling: | 4/19/2019 |
| | | Date of testing: | 4/19/2019 |
| Type of material & Purpose: | BC | Oven Dry Wt.(gms): | 880.0 |

| IS Sieve size in mm | Weight retained | Cummulative weight retained (gm) | Cummulative % of retained | Cummulative % of passing | Specification limits |
|---|---|---|---|---|---|
| 19.00 | 0 | 0 | 0.00 | 100.00 | 100.00 |
| 13.20 | 90 | 90.0 | 10.23 | 89.77 | 79 - 100 |
| 9.50 | 120 | 210.0 | 23.86 | 76.14 | 71 - 95 |
| 4.75 | 86 | 296.0 | 33.64 | 66.36 | 53 - 71 |
| 2.360 | 154 | 450.0 | 51.14 | 48.86 | 42 - 58 |
| 1.180 | 100 | 550.0 | 62.50 | 37.50 | 34 - 48 |
| 0.600 | 80 | 630.0 | 71.59 | 28.41 | 26 - 38 |
| 0.300 | 66 | 696.0 | 79.09 | 20.91 | 18 - 28 |
| 0.150 | 42 | 738.0 | 83.86 | 16.14 | 12 - 20 |
| 0.075 | 69 | 807.0 | 91.70 | 8.30 | 4 - 10 |
| Pan | 73.0 | 880.0 | | | |
| Total | 880.0 | | | | |

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

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| | | |
|---|---|---|
| **Name of Work** | : | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| **Client** | : | Bruhat Bengaluru Mahanagara Palike |
| **Consultant** | : | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| **Contractor** | : | HONNAPPA MURTHY |
| **Date of Testing** | : | 23-09-19 |
| **Type of Mix** | : | Tack coat |
| **Sample I/D** | : | 4 |

**DETERMINATION OF RATE OF SPREAD TACK COAT**

| **Determination** | **Unit** | **Test No** | |
|---|---|---|---|
| | | **1** | **2** |
| Size of Plate (mxm) | Mt | 0.30 x .30 | 0.30 x .30 |
| Area of Plate (a) | Sq.mtr | 0.090 | 0.090 |
| Initial Wt of empty Plate (b) | Kg | 0.755 | 0.751 |
| Final weight of plate after application of tack Coat (c) | Kg | 0.778 | 0.774 |
| Weight of tack Coat (d=c-b) | Kg | 0.023 | 0.023 |
| Rate of spread of tack coat | Kg/sq.m | 0.256 | 0.256 |
| Average | Kg/sq.m | 0.256 | |
| Specified Limit | Kg/sq.m | **0.250 to 0.30 Kg/sq.m** | |

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## TEST REPORT

| | |
|---|---|
| Project | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| Clients | Bruhat Bangalore Mahanagara Palike |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | HONNAPPA MURTHY |
| Total Weight in gr | 3000 |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 40 mm down size | Proposed Use | P.C.C |
| Sample Location | At Site | Date of Sampling | 30-09-2019 |
| | | Date of Testing | 30-09-2019 |

| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
|---|---|---|---|---|---|
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 102 | 102 | 3.40 | 96.60 | 95-100 |
| 20.00mm | 1470 | 1572 | 52.40 | 47.60 | 30-70 |
| 10.00mm | 650 | 2222 | 74.07 | 25.93 | 10-35 |
| 4.75mm | 710 | 2932 | 97.73 | 2.27 | 0-5 |
| Pan | 68 | 3000 | 100.00 | 0.00 | |

Remarks : Satisfactory / Not Satisfactory

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## TEST REPORT

| | |
|---|---|
| Project | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| Clients | Bruhat Bangalore Mahanagara Palike |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | HONNAPPA MURTHY |
| Total Weight in gr | 3000 |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 40 mm down size | | | Proposed Use | PCC |
| Sample Location | At Site | | | Date of Sampling | 30-09-2019 |
| | | | | Date of Testing | 30-09-2019 |
| IS Sieve Size | Weight Retained in gm | Cum. Weight Retained in gm | Cumulative Weight Retained in % | Cumulative Weight Passing in % | Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size |
| 80.00mm | 0 | 0 | 0.00 | 100.00 | 100 |
| 63.00mm | 0 | 0 | 0.00 | 100.00 | - |
| 40.00mm | 100 | 100 | 3.33 | 96.67 | 95-100 |
| 20.00mm | 1450 | 1550 | 51.67 | 48.33 | 30-70 |
| 10.00mm | 650 | 2200 | 73.33 | 26.67 | 10-35 |
| 4.75mm | 725 | 2925 | 97.50 | 2.50 | 0-5 |
| Pan | 75 | 3000 | 100.00 | 0.00 | |

Remarks : Satisfactory / Not Satisfactory

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# Test Report on Cement

| | |
|---|---|
| **Project** | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | HONNAPPA MURTHY |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 30-09-2019 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 35 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 387 | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 3mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 28.00% | |

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# Test Report on Cement

| | |
|---|---|
| **Project** | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | HONNAPPA MURTHY |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 30-09-2019 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 38 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 385 | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | |

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# TEST REPORT

| | |
|---|---|
| **Project** | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| **Clients** | Bruhat Bangalore Mahanagara Palike |
| **Consultants** | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| **Contractor** | HONNAPPA MURTHY |

## SPECIFIC GRAVITY AND WATER ABSORPTION

### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| **Type of Material** | **Sand/M sand** | **Proposed Use** | P.C.C |
| **Location/Source** | **At Plant/site** | **Date of Sampling** | 30-09-2019 |
| **Period of Soaking** | **24 hours** | **Date of Testing** | 30-09-2019 |

| Sl. No. | Test Property | | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | Average |
|---|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | | 691 | 697 | 693 | |
| B | Weight of oven - dry sample gm. | | 683 | 688 | 684 | |
| C | Weight of Pycnometer Filled with water gm | | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | | 1710 | 1710 | 1708 | |
| E | Bulk specific gravity | B | 2.668 | 2.626 | 2.631 | **2.642** |
| | | ( C + A - D ) | | | | |
| G | Absorption (%) | ( A - B ) *100 | 1.171 | 1.308 | 1.316 | **1.265** |
| | | B | | | | |

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# TEST REPORT

| | |
|---|---|
| Project | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| Clients | Bruhat Bangalore Mahanagara Palike |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | HONNAPPA MURTHY |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Total Weight:** | **3000** gms | | | | |
| **Type of Material** | **Fine aggregate (River Sand/M sand)** | | **Proposed Use** | P.C.C | |
| **Sample Location** | At Plant/site | | **Date of Sampling** | 30-09-2019 | |
| | | | **Date of Testing** | 30-09-2019 | |
| **IS Sieve Size** | **Weight Retained** | **Cum. Weight Retained** | **Cum. % Retained** | **Cum. % Passing** | **Spec. Limit (%) Passing (Zone-II)** |
| 10.00 mm | 0 | 0 | 0 | 100.00 | **100** |
| 4.75 mm | 245 | 245 | 8.17 | 91.83 | **90 - 100** |
| 2.36 mm | 285 | 530 | 17.67 | 82.33 | **75 - 100** |
| 1.18 mm | 525 | 1055 | 35.17 | 64.83 | **55 - 90** |
| 0.600 mm | 482 | 1537 | 51.23 | 48.77 | **35 -59** |
| 0.300 mm | 630 | 2167 | 72.23 | 27.77 | **8-30** |
| 0.150 mm | 625 | 2792 | 93.07 | 6.93 | **0 - 10** |
| Pan | 208 | 3000 | | | **-** |
| | | | | | |

**Remarks :** Satisfactory / Not Satisfactory

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| TEST REPORT | | | | | |
|---|---|---|---|---|---|
| **Project** | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 | | | | |
| **Clients** | Bruhat Bangalore Mahanagara Palike | | | | |
| **Consultants** | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | | | | |
| **Contractor** | HONNAPPA MURTHY | | | | |
| **Total Weight:** | 10000 | gms | | | |
| **SIEVE ANALYSIS** | | | | | |
| **Type of Material** | 20 mm down size | | **Proposed Use** | Concrete | |
| **Sample Location** | At Plant | | **Date of Sampling** | 03-10-2019 | |
| | | | **Date of Testing** | 03-10-2019 | |
| **IS Sieve Size** | **Weight Retained** | **Cum. Weight Retained** | **Cum. % Retained** | **Cum. % Passing** | **Spec. Limit (%) Passing** |
| **40.00 mm** | 0 | 0 | 0 | 100 | **100** |
| **20.00 mm** | 263 | 263 | 2.63 | 97.37 | **95 - 100** |
| **10.00 mm** | 5002 | 5265 | 52.65 | 47.35 | **25 - 55** |
| **4.75 mm** | 4335 | 9600 | 96.00 | 4.00 | **0 - 10** |
| **Pan** | 400 | 10000 | | | |
| | | | | | |
| **Remarks :** | Satisfactory / Not Satisfactory | | | | |

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## TEST REPORT

| | | | | | |
|---|---|---|---|---|---|
| **Project** | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 | | | | |
| **Clients** | Bruhat Bangalore Mahanagara Palike | | | | |
| **Consultants** | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | | | | |
| **Contractor** | HONNAPPA MURTHY | | | | |
| **Total Weight:** | 10000 | gms | | | |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Type of Material** | 20 mm down size | | **Proposed Use** | Concrete | |
| **Sample Location** | At Plant | | **Date of Sampling** | 03-10-2019 | |
| | | | **Date of Testing** | 03-10-2019 | |
| **IS Sieve Size** | **Weight Retained** | **Cum. Weight Retained** | **Cum. % Retained** | **Cum. % Passing** | **Spec. Limit (%) Passing** |
| **40.00 mm** | 0 | 0 | 0 | 100 | **100** |
| **20.00 mm** | 281 | 281 | 2.81 | 97.19 | **95 - 100** |
| **10.00 mm** | 4680 | 4961 | 49.61 | 50.39 | **25 - 55** |
| **4.75 mm** | 4550 | 9511 | 95.11 | 4.89 | **0 - 10** |
| **Pan** | 489 | 10000 | | | |
| | | | | | |

**Remarks :** Satisfactory / Not Satisfactory

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# TEST REPORT

| | | |
|---|---|---|
| Project | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 | |
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | |
| Contractor | HONNAPPA MURTHY | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | | |
|---|---|---|---|---|
| Type of Material | 12.5 mm down size | Proposed Use | Concrete | |
| Sample Location | Plant | Date of Sampling | 03-10-2019 | |
| | | Date of Testing | 03-10-2019 | |

| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 590 | 590 | 5.90 | 94.10 | 90-100 |
| 10.0 | 3338 | 3928 | 39.28 | 60.72 | 40-85 |
| 4.75 | 5410 | 9338 | 93.38 | 6.62 | 0-10 |
| Pan | 662 | 10000 | | | |
| | | | | | |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

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# TEST REPORT

| | |
|---|---|
| Project | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| Clients | Bruhat Bangalore Mahanagara Palike |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | HONNAPPA MURTHY |
| Total Weight: | 10000 gms |

## SIEVE ANALYSIS

| | | | |
|---|---|---|---|
| Type of Material | 12.5 mm down size | Proposed Use | Concrete |
| Sample Location | Plant | Date of Sampling | 03-10-2019 |
| | | Date of Testing | 03-10-2019 |

| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
|---|---|---|---|---|---|
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 585 | 585 | 5.85 | 94.15 | 90-100 |
| 10.0 | 3350 | 3935 | 39.35 | 60.65 | 40-85 |
| 4.75 | 5550 | 9485 | 94.85 | 5.15 | 0-10 |
| Pan | 515 | 10000 | | | |
| | | | | | |
| | | | | | |

**Remarks :** Satisfactory / Not Satisfactory

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# TEST REPORT

| | |
|---|---|
| Project | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | HONNAPPA MURTHY |

## SPECIFIC GRAVITY AND WATER ABSORPTION

### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| **Type of Material** | **Sand/M sand** | **Proposed Use** | Concrete |
| **Location/Source** | **At Plant/site** | **Date of Sampling** | 03-10-2019 |
| **Period of Soaking** | **24 hours** | **Date of Testing** | 03-10-2019 |

| Sl. No. | Test Property | | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | Average |
|---|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | | 648 | 650 | 672 | |
| B | Weight of oven - dry sample gm. | | 640 | 642 | 664 | |
| C | Weight of Pycnometer Filled with water gm | | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | | 1680 | 1685 | 1692 | |
| E | Bulk specific gravity | B | 2.634 | 2.675 | 2.604 | **2.638** |
| | | ( C + A - D ) | | | | |
| G | Absorption (%) | ( A - B ) *100 | 1.250 | 1.246 | 1.205 | **1.234** |
| | | B | | | | |

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## TEST REPORT

| | |
|---|---|
| **Project** | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| **Clients** | Bruhat Bangalore Mahanagara Palike |
| **Consultants** | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| **Contractor** | HONNAPPA MURTHY |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **Total Weight:** | **3000** gms | | | | |
| **Type of Materia** | **Fine aggregate (River Sand/M sand)** | | **Proposed Use** | Concrete | |
| **Sample Location** | At Plant/site | | **Date of Sampling** | 03-10-2019 | |
| | | | **Date of Testing** | 03-10-2019 | |
| **IS Sieve Size** | **Weight Retained** | **Cum. Weight Retained** | **Cum. % Retained** | **Cum. % Passing** | **Spec. Limit (%) Passing (Zone-II)** |
| **10.00 mm** | 0 | 0 | 0 | 100.00 | **100** |
| **4.75 mm** | 240 | 240 | 8.00 | 92.00 | **90 - 100** |
| **2.36 mm** | 246 | 486 | 16.20 | 83.80 | **75 - 100** |
| **1.18 mm** | 515 | 1001 | 33.37 | 66.63 | **55 - 90** |
| **0.600 mm** | 550 | 1551 | 51.70 | 48.30 | **35 -59** |
| **0.300 mm** | 660 | 2211 | 73.70 | 26.30 | **8-30** |
| **0.150 mm** | 580 | 2791 | 93.03 | 6.97 | **0 - 10** |
| **Pan** | 209 | 3000 | | | - |
| | | | | | |

**Remarks :** Satisfactory / Not Satisfactory

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## Test Report on Compressive Strength of Concrete Cubes

| | |
|---|---|
| **Project** | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | HONNAPPA MURTHY |
| **Location:** | Lab |
| **Grade of concrete:** | M20 |
| **Size of cube:** | 150x150x150 mm |
| **Reference IS code:** | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 03-10-2019 | 10-10-2019 | 7 days | 8.850 | 22500 | 305 | 13.56 | 13.56 |
| 2 | 03-10-2019 | 10-10-2019 | 7 days | 8.865 | 22500 | 304 | 13.51 | |
| 3 | 03-10-2019 | 10-10-2019 | 7 days | 8.720 | 22500 | 306 | 13.60 | |

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

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| Test Report on Compressive Strength of Concrete Cubes | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Project** | 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06 2. Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06 3. Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06 4. Drilling of Borewells and Maintance in Ward No.06 | | | | | | | |
| **Client** | Bruhat Bangalore Mahanagar Palike | | | | | | | |
| **Consultant** | TEJUS CONSULTANTS | | | | | | | |
| **Contractor** | HONNAPPA MURTHY | | | | | | | |
| **Location:** | Lab | | | | | | | |
| **Grade of concrete:** | M20 | | | | | | | |
| **Size of cube:** | 150x150x150 mm | | | | | | | |
| **Reference IS code:** | IS:516-1959 | | | | | | | |
| **Sl.No.** | **Date of Casting** | **Date of testing** | **Age of Test** | **Weight of Cube** | **Area of Cube** | **Failure load** | **Compressive strength** | **Avg. Compressive strength** |
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 03-10-2019 | 31-10-2019 | 28 days | 8.582 | 22500 | 451 | 20.04 | 20.06 |
| 2 | 03-10-2019 | 31-10-2019 | 28 days | 8.762 | 22500 | 450 | 20.00 | |
| 3 | 03-10-2019 | 31-10-2019 | 28 days | 8.560 | 22500 | 453 | 20.13 | |

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